

manipulating the valve to activate a flow of fluid from the pressurizable container and cause the evaporative mist to emit from the at least one spray nozzle.

In the Drawings:

Please amend Figs. 1 and 2 as shown in new Figs. 1 and 2, provided herewith, the amendment shown in red ink.

REMARKS

Claims 18-21 have been amended and claim 22 has been added. The amendments are fully supported by the specification and do not add new matter. Claims 18-21 were amended, in part, to address the rejections under section 112, second paragraph. In addition to these amendments dealing with the form of the claims, additional amendments were made to add means-plus-function language to emphasize the structural limitations, which were originally not considered as differentiating based on *Ex parte Masham*, 2 USPQ2d 1647 (1987). Such amendments were used to replace the “spray nozzle,” “valve,” “clip,” and “belt” elements. Also, the preamble for claims 18-21 were amended to recite an apparatus “for generating an evaporative mist” which is consistent with the purpose of the present invention. Support for this amendment is found throughout the specification and, particularly, on page 1, second paragraph the current invention is described as one that “delivers a fine mist spray to cool a localized area by evaporative cooling.” With respect to new claim 22, the claim is directed toward a method that incorporates all the limitations of the apparatus claims 18-20; therefore, no additional burden is placed on the Patent Office since this claim will not require additional searching.

Accordingly, all amendments provided herein are fully supported and no new matter has been added.

Drawings

The drawings were objected to under 37 CFR 1.83(a) for not showing the following features: (a) the “means for pressurizing the container removably mounted to said inlet of said

container” as recited in claim 11, (b) the “degree of restriction” recited in claim 18, and (c) the “aperture” recited in claim 21. This objection has been corrected as amendments to the drawing have been made and the amended drawings are submitted herewith. In particular, a bracket has been added to show that the fluid tank 1 of Fig. 1 and the pump apparatus 200 of Fig. 2 join together via the threading at the end of the fluid tank and underneath the cap of the pump apparatus. The complementary threading allows the pump apparatus to be removably connected. This is supported by the specification as the connection is described in the last paragraph on page 3. The valve 12 shown in Fig. 1 is described as a flow valve on page 3 of the specification. A valve is defined as “a device that regulates the flow of gases or liquids by blocking and opening passageways.” The American Heritage Dictionary, 3rd Ed., p. 887 (1994). The depicted valve inherently shows a degree of restriction, which is at least an open-close restriction. Finally, the “aperture” recited in claim 21 is inherently depicted in Fig. 1. The mist shown in Fig. 1 would not form without an aperture for emission at the end of the spray nozzle 10. In efforts to satisfy the Patent Office, the Applicant has added Fig. 3 to show the spray nozzle 10 with an aperture 30.

In light of the amended drawings and the arguments above, the drawings are in proper form and this rejection should be withdrawn.

Rejections Under 35 USC § 112

The rejection of claims 18-21 under 35 USC 112, first paragraph should be withdrawn. Contrary to the Patent Office, the specification does fully support each of the limitations that served as the basis for this rejection.

The limitation “for controlling the degree of restriction of fluid flow” in claim 18 has been amended to recite “for controlling the emission of evaporative mist” and this limitation is fully supported by the specification. In particular, in the last paragraph of page 2, the valve is described as “activating the flow of pressurized fluid through a nozzle.” This requires at least a degree of control towards emitting the evaporative mist since a fully restricted device has to be adjusted to emit evaporative mist. Due to the Patent Office’s position that this limitation is only

considered to be functional, the Applicant has amended the claim to recite this limitation in means-plus-function language, “means for controlling the emission of evaporative mist.”

The limitation “creating an evaporative cooling effect without the need for constant manipulation to direct the at least one spray nozzle” in claim 19 has been amended to recite “a means for hands-free directing of the means for delivering fluid as a continuous evaporative mist towards the individual creating an evaporative cooling effect,” which is fully supported by the specification. In the second paragraph of page 1 and the last paragraph of page 4, the invention is described as a device for delivering a fine mist spray to cool by evaporative cooling. Furthermore, the invention is described as providing “hands free operation.” See penultimate paragraph of page 3 of specification. Hands free operation means that constant manipulation is not required. Combined, the specification, particularly in these passages, describes a device that creates an evaporative cooling effect without the need for constant manipulation to direct the spray nozzle.

The limitation “an aperture size small enough to emit fluid particles having a size characteristic of an evaporative mist” of claim 21 is fully supported by the specification. Again, the specification does disclose a device that delivers a fine mist spray. See second paragraph of page 1 and the last paragraph of page 4. As described above in the discussion about the drawings, an aperture is inherently disclosed in the specification because one is inherently necessary for the fluid to emit out from the nozzle. Additionally, an aperture of a size small enough to emit fluid particles having a size characteristic of an evaporative mist is inherently disclosed, otherwise a fine mist spray would not be emitted.

Accordingly, the limitations that are the basis for the 112, first paragraph rejections are fully supported by the specification and this rejection should be withdrawn.

The rejection of claims 19 and 20 under 35 USC 112, second paragraph should be withdrawn. The claims have been amended and, therefore, this rejection is no longer appropriate.

Rejections Under 35 USC § 102

The rejection of claims 18, 19 and 21 under 35 USC 102(b) over Cushing (US Pat. No. 4,911,339) should be withdrawn because Cushing fails to disclose all the claimed elements of these claims.

Cushing discloses a bicycle water pump for delivering water to a cyclist for drinking without mounting off of the bicycle and not a portable evaporatively cooling device. In the entire context of the claim, the limitation in the preamble “for generating an evaporative mist, useful for evaporatively cooling an individual” limits the structure of the claimed invention in that the apparatus must deliver a mist spray. See MPEP section 2111.02. This is consistent with the limitation in claim 18, as amended, “a means for delivering fluid as a continuous evaporative mist.” Together, these limitations of claim 18, and dependent claims 19-21, limit the structure of claimed apparatus to one that can deliver a spray mist. Cushing fails to disclose such a delivery system or spray nozzle. In fact, such a delivery system would be contrary to the purpose of Cushing. The device in Cushing is intended to provide water for drinking and a spray mist would be undesirable for such purpose.

Furthermore, amended claim 19 differs from Cushing in the limitation “means for hands-free direction of the means for delivering fluid as a continuous evaporative mist,” which replaces the “without the need for constant manipulation.” This structural limitation is not disclosed in Cushing, which discloses a bicycle pump that requires constant depression of a valve to deliver fluid to a cyclist. On the other hand, the present invention only requires an initial activation of a valve and the spray mist is delivered without the need of further manipulation of the device. Also, amended claim 21 further differs from Cushing in the limitation “aperture size small enough to emit fluid as particles having a size characteristic of an evaporative mist.” Again, this aperture size is inherent in a spray nozzle that emits a spray mist. Cushing actually discloses and teaches something contrary to this aperture size because Cushing requires a stream of water for drinking, which requires a larger aperture size.

Accordingly, Cushing fails to disclose all the limitations of claims 18, 19 and 21 and, therefore, the anticipation rejection based on Cushing should be withdrawn.

Rejections Under 35 USC § 103

The rejection of claims 5, 7-12, 15-17 and 20 under 35 USC 103(a) over Cushing in view of a combination of the following: Rosenberg (US Pat. No. 4,960,419), Shurnick et al. (US Pat. No. 4,852,781), Norman (US Pat. No. 842,689), and Roueche et al. (US Pat. No. 5,186,391) should be withdrawn. The references, alone or in combination, fail to teach the claimed invention, and further, the combination of the references is improper because of a lack of motivation to combine.

Firstly, the combinations, assuming they are proper, do not teach the claimed invention because Cushing fails to teach all that is asserted by the Patent Office. As expressed above in the section discussing the 102 based rejection, Cushing does not teach a spray nozzle for emitting fine mist spray and, furthermore, does teach a device for evaporative cooling. Therefore, any combination requiring Cushing (which is required for all the 103 rejections) fails to teach all claim limitations and does not render the cited claims obvious.

Secondly, the rejection of claims 5, 7-12, and 15-17 are based on an improper combination of Cushing in view of Rosenberg and for some of the claims, a further combination with one of the other cited references. The combination is improper because there is a lack of motivation to combine Cushing with Rosenberg. The Patent Office's claimed motivation was the following, "Rosenberg discloses, in column 6, lines 3-6, a conventional alligator clip 235 for securing a tube to a convenient point." In no conceivable manner does this suggest any motivation to combine Rosenberg with Cushing. Rosenberg discloses a modified surgical knife that provides a feature for suctioning or removing fluid and fumes and fails to disclose anything to suggest combination with a bicycle water pump for delivering fluid. The Patent Office has failed to establish a prima facie case of obviousness for one of the three basic criteria set out in MPEP section 2143, the motivation to combine, is absent.

Furthermore, these two references are in two completely nonanalogous art: Cushing in the art of water delivery and Rosenberg in the art of surgical devices. MPEP section 2141.01(a), in the section titled "To Rely on a Reference under 35 USC 103, it must be Analogous Prior Art," it states that "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be

reasonably pertinent to the particular problem with which inventor was concerned.' *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)." Rosenberg is neither in the field of water delivery nor reasonably pertinent to the problem of water delivery for cooling an individual; therefore, Rosenberg is improper prior art for making an obviousness rejection.

Accordingly, based on at least one of the reasons above, the rejection of claims 5, 7-12, 15-17 and 20 is improper and should be withdrawn.

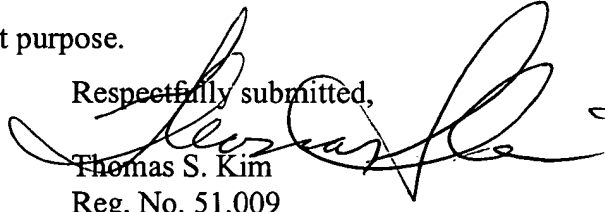
CONCLUSION

Newly added claim 22 should be free from the rejections placed on claims 18-20 for the same reasons as presented above in the sections addressing the 112, and 103 rejections for one or more of claims 18-20. Furthermore, based upon the amendments and arguments presented herein, the Applicant submits that all pending claims, claims 5, 7-12 and 15-22, are in condition for allowance. The Applicant respectfully requests that all pending claims be allowed.

Should the Examiner require any further information or wish to discuss any aspect of this Response, the Examiner is encouraged to telephone the undersigned at the telephone number set forth below.

No fee is believed to be due. Should any fee be deemed necessary, however, the Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Rosenbaum & Associates, P.C. deposit account No. 18-2000. A duplicate copy of this Request is enclosed for that purpose.

Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES

In the claims:

Please amend claims 18-21 to appear as shown below.

Also, please add claim 22 to appear as shown below.

18. (Amended) An apparatus for generating an evaporative mist, useful for evaporatively cooling an individual, comprising:
a pressurizable container for holding fluid for delivery,
a manual pump physically connected to the pressurizable container,
[at least one spray nozzle in fluid communication with the pressurizable container,] a means for delivering fluid as a continuous evaporative mist, and

[a valve in fluid communication with the pressurizable container,] a means for controlling the [degree of restriction of fluid flow] emission of evaporative mist.

19. (Amended) The apparatus for generating an evaporative mist according to [of] claim 18, further comprising:

a set of fluid conduits, a first conduit residing within the pressurizable container and a second conduit outside the pressurizable container, the conduits being in fluid communication with the [valve] means for controlling the emission of evaporative mist and pressurizable container, and

[a clip for securing the second conduit to an article of clothing on an individual to direct the mist from the at least one spray nozzle] a means for hands-free directing of the means for delivering fluid as a continuous evaporative mist towards the individual creating an evaporative cooling effect [without the need for constant manipulation to direct the at least one spray nozzle].

20. (Amended) The apparatus for generating an evaporative mist according to [of] claim 18, further comprising:

a [belt-like fastener] means for securing the pressurizable container to the individual for hands-free carrying of the [evaporatively cooling] apparatus.

21. (Amended) The apparatus for generating an evaporative mist according to [of] claim 18, wherein the [spray nozzle has] means for delivering fluid as a continuous evaporative mist comprises an aperture size small enough to emit fluid as particles having a size characteristic of an evaporative mist.

22. (New) A method for generating an evaporative mist for evaporatively cooling an individual using a portable system that delivers an evaporative mist including a pressurizable container for holding fluid, a manual pump connected to the container, at least one spray nozzle in fluid communication with the container, and a valve in fluid communication with the container, the method comprising:

securing the pressurizable container to the individual for hands-free portability,

securing the at least one spray nozzle to an article of clothing on the individual to direct the evaporative cooling mist towards the individual in a hands-free manner to evaporatively cool the individual, and

manipulating the valve to activate a flow of fluid from the pressurizable container and cause the evaporative mist to emit from the at least one spray nozzle.